The U.S. Farm Economy: Current State and Future Prospects

Keith Collins, Chief Economist, USDA
Far West Equipment Dealers Association Annual Meeting
Maui, Hawaii, November 4, 2000

Much of the farm equipment industry has been under financial strain for the past couple of years, reflecting the financial pressures faced by many parts of production agriculture. Although the 1990's saw many positive developments for U.S. agriculture and its related industries, the downturn in the farm economy has raised fundamental issues about why and how agriculture is changing, and what these changes may mean for the future. Today, I want to begin my comments with a profile of current farm financial conditions and the implications for your industry. Then, I want to assess the key factors that will shape the course of the farm economy over the next several years. I believe these factors are the growing influence of the global economy and international trade, the impacts of technology and innovation in farm production, the role of structural change in farm markets, and the role of domestic farm policy.

State of the U.S. Farm Economy at the Start of Year 2001

One measure of the overall strength of agricultural markets is the percentage change in the annual market value of farm sales compared with the previous 5-year average (chart 1). That measure shows that the past two years have been pretty week by historical standards–one of the 3 weakest periods since WWII. Two primary factors are behind the recent reduction in farm prices and returns earned from the market. First, U.S. production of major crops has been large–for example, record corn and soybean crops are forecast for 2000. In addition, there has been generally good weather for crops around the world, which boosted global crop production sharply first in 1996 and 1997 and has kept production high since then. This has intensified our competition in export markets from a variety of countries, notably China, which shifted from being a major importer to a major exporter. The second factor is slower growth in foreign demand for farm products due to the economic slowdown of 1998 and 1999 just about everywhere except in NAFTA countries and due to the continuing high value of the U.S. dollar. The Asian currency crisis, followed by recession in Latin America and other regions, such as the Former Soviet Union, saw a curtailment of a range of imports, notably meat and poultry products, which had been growing at double digit rates until then.

The result of these developments has been rising U.S. crop inventories and unusually weak market prices and returns. Major crop prices during 1999 and this year were the lowest in 15 to 25 years, depending on the crop. Yet, we are not witnessing a national farm financial catastrophe. Farm numbers have been fairly stable in recent years, farm debt has been stable, the proportion of nonperforming farm loans has risen only slightly the past two years, and farm real estate values and land rental rates generally continue to rise. In 1999, U.S. farm land values rose 3 percent and were up in 42 states. Our data on cash rents paid for 2000 show increases in 40 states.

There are several factors that explain why there has not been a much more damaging response to the weak market. The first and most obvious reason is soaring direct government payments to farmers. U.S. net cash farm income excluding all government payments, that is, cash receipts from the

market minus total cash expenses during 1999 and 2000 are the lowest years since 1984 (chart 2). Including payments, net cash income in 2000 is up a little and about the same as the previous 5 year average. The 1996 Farm Bill provides several types of payments to producers that include both fixed payments–the so-called AMTA payments–and countercyclical payments from the marketing loan programs–the so-called Loan Deficiency Payments and Marketing Loan Gains. These two forms of payments alone amount to about $13 billion for each of the 1999 and 2000 harvested crops, more than double the levels projected when the farm bill was enacted in 1996 (chart 3).

In addition to these payments built into the Farm Bill, Congress enacted ad hoc bills in 1998, 1999 and 2000, providing supplemental payments to producers totaling some $22 billion. And, last week, Congress provided another $3 billion in payments as part of USDA's appropriation bill for 2001. For 2000, total government payments to farmers will account for 40 percent of U.S. net cash farm income, well beyond the payments expected at the time the 1996 Farm Bill was enacted. Of course, many farms do not receive these payments, such as many horticultural or livestock farms. If we look only at the net cash farm income earned from the major field crops–wheat, rice, corn, sorghum, oats, barley, cotton and soybeans–direct government payments are expected to account for 75 percent of net cash farm income earned from these crops for the 2000/2001 crop year.

A second reason a financial crisis has not materialized is the strong nonfarm economy which has helped increase off-farm income of farm households. For many farm households, farming is a second job. A third reason is the adjustments farmers are making to improve their efficiency and reduce production costs. There has been much shifting to alternative crops that offer higher returns or to reduce input costs, such as GMO soybeans and cotton; debt increases have been limited; and production cost increases had been under control, at least until the past year's spike in interest rates and oil prices. Of course lower input expenditures have directly affected the farm equipment industry, because one of the ways farmers have adjusted is by delaying equipment purchases.

USDA's annual Agricultural Resource Management Study, tracks farmers' spending on capital equipment. For 1999, the most recent survey year, total U.S. spending on tractors and other farm machinery was about $9 billion, down from $9.5 billion in 1998 (chart 4). Spending is roughly related to the ups and downs of average farm prices. Spending in 1999 was down 5 percent, after rising 5 percent in each of the 3 previous years. For six western states represented in your organization–Arizona, California, Colorado, Nevada, Utah and Wyoming--there are about 178,000 farms and they spent $880 million on tractors and other farm equipment in 1999. They spent another $2.6 billion on other capital items, such as trucks, cars, buildings and breeding stock.

Turning to the issue of debt stress in U.S. agriculture, after rising during the 1990's, farm debt is not increasing this year, and a percent of assets, looks in fairly good shape (chart 5). A more useful indicator of financial stress than the level of debt is farm debt as a percentage of the maximum feasible debt that farms can take on (chart 6). Maximum feasible debt is a calculation based on net farm income, the interest rate, an assumed 7-year average repayment period for debt, and bankers' guidelines on the maximum level of income that should be used for principal and interest. For 2000, U.S. farmers on average are using a little over 60 percent of their feasible debt. We call the 60 percent, "debt repayment capacity utilization (DRCU)." DRCU is at a reasonably sound level, although

it is the highest since 1986 and has been rising steadily in the 1990s. Still, the increases are modest, and the level is half that of the 1984-85 crisis period.

DRCU may be taken a step further by looking at how this measure of debt stress is distributed and look at it only for what we call commercial farms (chart 7). A commercial farm business as an operation that sells at least $50,000 in farm products per year. Of the 2.2 million U.S. farms, about one-quarter, or 512,000 farms, sell at least $50,000 in output per year. These farms account for 90 percent of total U.S. production.

Farms that have debt equal to 120 percent or greater than their maximum feasible debt are generally considered to be having financial difficulty. However, many of these farms can still service debt by using off-farm income or assets such as inventories of commodities. Farms that can't service their debt and stop performing on their loans are usually farms that have debt equal to 240 percent or greater than their maximum feasible debt. In 1998, the number of farms in this category rose, but in 1999, the number fell. The weak markets probably led producers to limit new credit and use the record-large government payments to pay down debt. In 1999, about 50,000 of the nation's 512,000 farm businesses had debt at 240 percent or more. For 2000, we project only a very slight increase to about 52,000.

Of the 178,000 farms in the far west states I mentioned earlier, 47,500 are classed as commercial farm businesses, selling $50,000 or more per year. In 1999, 13 percent, or 6,100, had debt repayment capacity use of 240 percent or greater. For 2000, we foresee only a slight increase to 6,400 farms. We can also simulate what might happen if commodity prices were to stay at this year's levels throughout 2001, and Congress does not enact another supplemental farm aid bill. The percentage of commercial farms in the 6 western states with debts at 240 percent or more of their debt capacity would increase from an estimated 13 to 17.5 percent, or from 6,100 farms to 8,300 farms.

This financial analysis provides some perspective on the overall condition of U.S. and far west farms and some of the risks we still face. Agriculture has been at the bottom of a business cycle in 1999 and 2000. It appears at this time that recovery is occurring slowly. But the slow pace of adjustment suggests that without continued added assistance, farm income in 2001 will fall sharply, debt stress will rise, and we may begin to see a sharper decline in farm numbers than we have seen in recent years.

I now want to turn to some of the key factors that may help or hinder financial recovery in U.S. agriculture, beginning with the international trade picture.

The Influence of International Trade

In the mid-1990's, the value of U.S. agricultural exports rose sharply peaking at a record $60 billion in FY 1996 (chart 8), up by more than one-third from just two years earlier. Also during the mid-1990s, world gross domestic product (GDP) grew at an annual rate of over 3 percent, compared with less than 2 percent during the early 1990s. And at the same time, global grain and oilseed production fell about 4 percent.

The surge in the value of agricultural exports led many to conclude that U.S. agriculture was entering a period of unprecedented prosperity–continued and steady increases in world economic

activity would be enough to keep farm prices strong even with normal weather. For many, that belief was a cornerstone for the 1996 farm bill. Needless-to-say, that long-term forecast did not materialize. Good weather and strong prices led to an abrupt turnaround in world crop production, which shot up 8 percent in 1996/97. Then, in 1998, world economic growth, excluding the United States, fell to a paltry 0.9 percent. The slowdown in growth combined with the continued strong crop production caused crop prices to free fall.

The world economy has steadily improved over the past couple of years. The world economy grew more than 2.5 percent last year and is estimated to grow more than 4 percent in 2000 and about 3.5 percent in 2001. As a result, U.S. farm exports are improving. Export value is expected to be $51.5 billion this fiscal year, up from the low of $49 billion two years ago, but still well below the $60 billion peak in 1996. On a volume basis, though, farm exports are expected to rise 9 percent in 2001 and volume growth is the key to eventually reducing surpluses and strengthening prices.

Over the next few years, the volume of U.S. agricultural exports is expected to register fairly strong growth, aided by large U.S. production and steady gains in world food demand, supported by steady growth in most of Asia, Latin America, North Africa and the Middle East. In these regions, the motivating forces for stronger demand include: income growth, population growth, growing middle classes, growth in food processing industries, diversification of diets toward higher value products, continued privatization of importing decisions, and continued progress toward freer trade through multilateral and bilateral policy reforms will all contribute to trade expansion (chart 9). In contrast, very limited growth in parts of Asia, Africa and the former Soviet Union will likely restrict agricultural export opportunities to those regions.

Despite better demand, most major commodity prices are expected to recover only slowly because of large production and stocks. While there are a number of key countries to watch, I think two to keep an eye on over the next several years are China and Brazil. China's agricultural policy has been in a state of flux as government priorities and reform initiatives have shifted back and forth. In the mid-1990's, China feared food shortages. Lester Brown of Worldwatch Institute wrote an article that was highly publicized in China titled, "Who Will Feed China?" The article argued that China's food import needs would eventually exhaust world exportable supplies and lead to global food shortages. The Chinese responded to such concerns with government procurement programs designed to boost food production. Combined with excellent weather and a slowdown in their own consumer demand, surpluses soared and China sharply reduced imports and began exporting such commodities as corn and cotton, clearly cutting into U.S. market share. China is once again reversing course as protectionism appears to be giving way to market orientation. At the beginning of this year, as they negotiated WTO entry, China announced new regulations designed to reduce government stockpiles by lowering production incentives. This is very positive for U.S. long-term export prospects. No immediate, substantial increase in exports to China is anticipated, as China is expected to offset lower production by reducing existing stockpiles. Nevertheless, the long-term trend is for China's agriculture to gradually liberalize as the government tries to cut costs. Right now, we project that U.S. exports will rise by $2 billion by 2005 as China transitions into the WTO with increases in our exports of grains, cotton, and to a much smaller extent horticultural products and meat.

Another country to watch is Brazil, the number one U.S. competitor in the global oilseeds market. Despite near-term constraints on investment in processing facilities and infrastructure due to recent austerity measures, Brazil's agricultural prospects are extremely favorable in the long-term. Large areas of the country remain undeveloped but with sufficient investment could be converted into very productive crop land. Steady improvements in waterway and railroad transportation will make more areas of the country accessible to terminals and export ports. Some estimate that Brazil could increase the area under cultivation by as much as 40-50 million acres given the right mix of production incentives and investments in infrastructure. They also produce and could export a range of products including beef, poultry and horticultural products.

The Influence of Trade Policy

The prosperity of U.S. agriculture remains tied to finding a market for our abundance, so agreements that reduce trade barriers and open markets are crucial. Despite the criticism of some, I believe previous trade agreements have provided significant benefits to U.S. agriculture as indicated in these examples.

First, the *1988 U.S.-Japanese Beef/Citrus Agreement* has been enormously important for our beef and citrus exports. Building upon earlier agreements in the 1970's and early 1980s to enlarge Japan's beef quotas, this agreement phased out Japan's beef quota system and replaced it with tariffs. U.S. beef exports to Japan increased from about 160,000 tons in 1988 to 360,000 tons in 1999, worth $1.4 billion. The elimination of other restrictions associated with the beef quota allowed consumer demand to be reflected in the market, and U.S. beef exports shifted from frozen beef to more higher-valued chilled beef.

Second, the *North America Free Trade Agreement* has turned out to be an important catalyst in accelerating North American agricultural trade. U.S. agricultural exports to our NAFTA partners grew from $9 billion in 1993 the year before the agreement with Mexico to $12.7 billion in 1999. One-fourth of U.S. agricultural exports are now shipped to Canada and Mexico, up from 17 percent a decade ago. U.S. exports of higher-valued products, such as beef, horticultural products, and processed foods, have especially benefitted from NAFTA's tariff reductions. At the same time, U.S. agricultural imports from NAFTA partners have increased from $7.4 billion in 1993 to $12.9 billion in 1999, one-third of total imports, up from 25 percent a decade ago.

Third, the unprecedented *Uruguay Round Agreement on Agriculture* brought world agricultural trade under meaningful disciplines for the first time. Since implementation started in 1995, export subsidies and tariffs have declined, and some countries have readjusted domestic support programs to be less distorting. In addition to increased demand for agricultural products generated by the overall WTO agreement, U.S. exports have benefitted from specific market-opening measures–beef to Korea, pork and poultry to the Philippines, pork to Japan. The companion agreement on sanitary and phytosanitary (SPS) measures has also opened new markets–for example, for U.S. horticultural products to Japan–and encouraged countries to move toward more science-based, transparent SPS systems.

Despite these and other agreements, world agriculture remains highly protected and agricultural tariffs remain higher than other sectors. World industrial tariffs are now average 4 percent while agricultural tariffs average over 40 percent, the same level as industrial tariffs at the end of World War II. Government intervention in agriculture remains pervasive. The OECD estimates that for developed countries government support in various forms to agriculture reached over $360 billion in 1999, equal to 40 percent of the value of agricultural production. In percentage terms, we are back to the record years of the mid-1980s when the Uruguay Round was initiated to bring trade-distorting intervention under control.

Efforts are underway to address these remaining barriers and distortions–the Free Trade Area of the Americas (FTAA), the Asia-Pacific Economic Cooperation (APEC) forum, and new talks in the WTO. Where are all these negotiations heading and what are the implications for U.S. agriculture? The FTAA aims to create a hemispheric free trade area by 2005. The APEC has a more open-ended agenda as a regional economic forum, even though in 1994, all members signed a declaration to establish free trade and investment in the region by the year 2020. Developed countries set a 2010 deadline. Benefits from trade liberalization from these talks would appear to be a long way off.

So attention turns to the WTO talks, which began in March this year. The U.S. submitted a comprehensive proposal in June (chart 10). The proposal calls for further reductions or elimination of tariffs, increases in tariff rate quotas, disciplining of state trading enterprises, the elimination of export subsidies, and continued reductions in trade-distorting agricultural support. Eliminating global export subsidies would mainly affect the EU, which accounts for about 90 percent of all export subsidies. The U.S. would have to eliminate the Export Enhancement Program and the Dairy Export Incentive Program, and that could have implications for the U.S. dairy program.

Substantially reducing or eliminating tariffs is expected to provide significant benefits to U.S. exports. U.S. agricultural tariffs average around 5 percent, with only a few high tariffs associated with tariff-rate quotas. With over half of U.S. exports now accounted for by processed intermediate and higher-valued products, a key priority is to reduce substantially or eliminate what is known as tariff escalation, whereby tariffs on processed products are substantially higher than on the raw or unprocessed commodity.

Since 1980, U.S. beef and poultry export tonnage has grown at an annual rate of 13 percent and pork at 8 percent. That compares with major bulk crops where average growth has been near zero over the past twenty years. Much of the meat export growth has been to countries where we have trade agreements – Canada, Mexico, Japan, Korea. But with meat exports concentrated in a handful of countries and high barriers evident in many potential markets, such as fast growing, middle-income markets in Asia and Latin America, a new WTO agreement to address such barriers is imperative to ensure continued export growth.

The U.S. WTO proposal also calls for reductions in trade-distorting domestic farm programs. The Uruguay Round agreement called for each country to reduce its total spending on trade-distorting programs by 20 percent, as measured by the Aggregate Measurement of Support, or AMS. Our allowable trade distorting support was limited to about $24 billion in 1995, and falls to about $19 billion for the 2000/2001 period. Between 1995-98, the U.S. support was well below the WTO ceiling. But

as farm prices began to plummet in 1998, U.S. farm program expenditures have risen rapidly, and are now approaching the U.S. commitment on domestic spending.

The Influence of Technology and the Changing Structure of Markets

Another key factor in shaping farming's future is technology, which remains a complicated and controversial topic, so I will make only a few general points. In looking back over the 20th century, analysts generally point to the 1930's as the beginning of the productivity revolution that was in full bloom by the mid 1940's. The source or is generally traced to government investment in research, an increasingly educated and skilled farm workforce, larger and more specialized farms, the substitution of purchased production inputs for farm-produced inputs, better rural transportation and communication infrastructure, better access by farmers to financial markets and some even add the advent of extensive farm price support programs which tended to stabilize markets.

One of the most amazing developments has been that this steady and rapid productivity growth has continued to this day (chart 11). Productivity gains have continued despite a leveling off in farm numbers with slower consolidation among farms, a trend toward less income support by government (until the last several years), farm investment in capital being less than the depreciation of capital in every year since 1980, implying a shrinking total capital stock in farming, and environmental concerns placing limits on farm production practices (such as chemical use, which has been cited often as a major factor in the earlier productivity growth). Yet strong productivity growth continues. Generally, we can attribute this to improvements in the quality of technology, improvements in farmers' human capital and their ability to apply technology.

Looking ahead, there is every reason to believe that farm productivity will continue to grow steadily. Improving productivity is not just the application of new hardware. It is also how we organize production and distribution. It is new market arrangements partly driven by mergers, joint ventures, and vertical arrangements such as contracting. Public investment in research, while having slowed, is still large and private investment is more prominent today than in the 1930's and 1940's. And the quality of technology will continue to improve, whether in bioengineering, the use of satellites and communications, such as use of the internet, or in more basic improvements, such as energy efficiency. And farmers will keep getting better in applying technology.

And technology breakthroughs off the farm will also drive changes on the farm. For example, the dropping costs of producing liquid fuels and electricity from renewable materials are leading some people to think that the 21st century will be the bioproduct century as opposed to the 20th century which was the fossil fuel century. Under this vision, large acreages of crops like switch grass and short-rotation trees would be harvested annually from tens of millions of acres of cropland.

But the growth of technology, its application, and the related regulation will challenge agriculture. I believe it will continue to drive the trend toward fewer and larger farms, even higher capital requirements for farms, and a loss of autonomy as participation in processor alliances becomes more necessary and limits traditional farmer independence. We all know how much concern has been raised over concentration and related structural changes in farm-related industries such as seed suppliers and meatpackers. There is legislation before Congress, both Democratic and Republican

bills, that would sharply increase the USDA role in approving mergers and acquisitions in all of agribusiness, including farm machinery, and restrict price discrimination . There are also proposals to limit forward contracting and processor ownership of farm production facilities such as feedlots. There are proposals for Federal laws on contracting in agriculture. There are concerns over the potential for anticompetitive practices in internet markets that are now rapidly being formed. The difficulties presented by the recent Starlink corn variety are a stark reminder of the promise and perils of introducing new technology.

Biotech crops represent a technology that is pointed to as one of the great promises for introducing new high-value varieties of crops that will increase productivity, meet consumer demand for new product attributes and raise farm income by moving producers up the value chain.

Most studies indicate biotech crops generally reduce pesticide use, raise yields, and improve net returns. Even as farmers appear to be benefitting from biotech crops, many consumers around the world are wary of biotechnology, citing potential environmental or health risks. The EU, Japan, Korea, Australia, New Zealand, and other countries are moving to mandatory labeling of biotech commodities and food. The longer-term role of biotech crops in the world food system ultimately hinges on consumer acceptance.

If biotech products come to be widely accepted, non-biotech foods will occupy a niche market for consumers who are willing to pay a premium, similar to the organic food market. But if enough consumers resist biotech crops, the issues become more complicated. Can the grain handling and distribution system deal with segregation and labeling of traditional bulk, commingled commodities? Setting tolerances, developing testing methods, and addressing different international standards further complicate the issue. The role of consumer preferences, both domestically and internationally, has contributed to market uncertainty, which, regardless of the final verdict on biotech food, may slow the process of biotechnology development and farmer adoption.

While technology development and its application could pose difficulties for agriculture, farmers must adapt to technology advances and its consequences if we are to remain competitive in global markets and increase farm income through expanding consumer markets.

The Influence of Domestic Policy Reform

The last major factor affecting farming in the future that I want to address is domestic farm policy (chart 12). The 1996 Farm Bill enacted several fundamental reforms in farm programs with the intent of making U.S. agricultural policy more market oriented. Annual target price-deficiency payments were replaced with 7 years of fixed but declining payments, annual acreage idling programs were eliminated, price support loan rates were capped at their 1995 levels and the Conservation Reserve Program (CRP) was restricted to no more than 36.4 million acres, down from the previous statutory limit of 40-45 million acres.

Many point to historically low farm prices and the ad hoc farm legislation of the past three years as strong indictments of the 1996 Farm Bill. Key members of Congress share this viewpoint and have called for overhaul of the 1996 Farm Bill next year in 2001, rather than waiting until 2002 when the Bill expires. Even if there is not a full rewrite of the Farm Bill next year, based on the income prospects I

cited earlier, Congress will likely at least consider yet another farm aid package, which could provide an opportunity for making at least some fundamental changes in the 1996 Farm Bill.

While it may seem obvious, the 1996 Farm Bill is not responsible for the collapse in farm commodity prices. And there are areas of the farm bill that most agree have worked well and will continue in similar form. One area is planting flexibility. Prior to the 1996 Farm Bill, a producer's income support payments depended on the amount of acreage planted to particular crops. The payments were production and trade distorting. They discouraged shifts into crops with higher market returns and inhibited more environmentally beneficial crop rotations. The 1996 Farm Bill, with few exceptions, by separating government income support payments from current plantings, and making them fixed payments, enabled farmers to shift acreage among crops and with no loss in income support payments. Farmers have responded to this change by shifting the mix of crops planted. For example during the previous farm bill, 1990-95, wheat plantings averaged nearly 72 million acres, but have fallen to below 63 million acres the last two years as wheat farmers nationwide have shifted to other crops.

Flexibility was also enhanced by the elimination of annual acreage set aside programs. Prior to enactment of the 1996 Farm Bill, the Secretary had the authority to require producers to set-aside or idle a portion of their crop acreage as a condition for being eligible for price support loans and direct payments. Acreage idled under these programs averaged more than 40 million acres during 1983-89, although it was much less in the early 1990's. During the 1996 Farm Bill debate, many argued that idling cropland in the United States created an incentive for our competitors and importers of our products to expand production, lowering the U.S. share of world trade. Producers generally applaud the increased planting flexibility provided by the 1996 Farm Bill. For that reason, it seems unlikely that Congress would will revert to previous legislation by placing restrictions on plantings as a condition for receiving income support payments or by re-instating acreage idling programs, although there is some interest in this in certain areas of the country.

Another area of general satisfaction with the Farm Bill is the conservation programs. If anything, there is growing interest to expand them, with interest ranging from increasing the Conservation Reserve Program to broader "green payment" or stewardship programs that would provide cost-share and income support. For example, the administration and some in Congress have proposed a program where producers would receive increasing payments for applying more stringent levels of conservation practices. The payment levels would exceed the costs of implementing the practices and would, in fact, be a form of income support payments. Advocates argue that legislators from states in the east and far west, which receive proportionally less from most farm programs, would be more willing to support payments to farmers, if the payments were more linked to environmental performance rather than the traditional major field crops. Some modest increase in future funding for conservation programs seem likely in the next farm bill, but a major increase in conservation program funding may require redirecting funds from income payments to farmers. That would be highly controversial and seems very unlikely at this point.

The area of greatest controversy for the 1996 Farm Bill has been the fixed income support payments authorized for program crop farmers during FY1996-2002. Critics have raised a number of concerns about these payments and the supplemental payments that increased them by set percentages. First, it is argued that they do not reflect how bad the drop was in prices or incomes. Second, the

payments are based on a producer's historical acreage, which may not reflect a producer's current cropping patterns. Third, the payments were limited to only the major program crops. As a result, it has been argued that the supplemental aid may not have been very effective in stabilizing the incomes of some producers. In addition, it is argued that the ad hoc nature of the supplemental bills causes uncertainty for farmers and lenders, since they have no way of predicting how much aid Congress will provide in any year.

The loan program payments have also raised concerns in that they are tied to production and prices, and therefore distort production decisions. They limit the extent to which farmers cut back production when prices are low. And of course, there are concerns about payment limits not being tight enough for both the fixed and marketing loan program payments.

The question for 2001 or 2002 is how might these programs be reformed? Many support replacing the 1996 Farm Bill's fixed payments with countercyclical payments, that is, a program that would trigger payments based on the level of prices or income. Others want higher price support loan rates, thereby ensuring that government payments better reflect current market conditions. Revenue and whole farm insurance provide another means of stabilizing farm income and many support expanding these programs as the basis for the safety net of the future. Unfortunately, the extent to which all of these such programs stabilize producer's incomes depends on the degree to which payments are linked to a farmer's current production and market prices. Thus, we can improve the farm income safety net, we can make it more countercyclical, but improving the safety net that way comes at the expense of increased government-induced distortion in farmers' planting, production and marketing decisions. And, it is on a collision course with our WTO proposal which calls for further reductions in productions and trade distorting support. Already, our domestic trade distorting support for 2000 is estimated in excess of $15 billion, compared with the WTO limit of $19 billion, and that is a limit we are proposing to reduce in the WTO (chart 13).

Half of our program spending that is subject to discipline and counted in the aggregate measure of support reported to the WTO is spending on the marketing assistance loan programs which go primarily to the eight major crops and are expected to cost $8 billion for the 2000 crops alone, mostly in LDPs or loan deficiency payments. These marketing loan programs establish a minimum farm price for producers. They are production distorting and subject to discipline under the WTO, thus they count in our aggregate measure of support. Because they provide a minimum price, they limit the reduction in production when market prices are low. Recent studies suggest the loan programs are resulting in 4-5 million acres per year being planted, compared with no programs. While there are problems with this program, it also provides a lot of financial support to producers and is widely supported by them so major changes in these program would entail a lot of opposition. The most obvious candidate for change is the sugar program which is becoming increasingly ineffective and costly as U.S. sugar production has increased, imports have fallen to the minimum required under the WTO and now, under NAFTA, Mexico must be given increasing access to our market.

Finally, I should say that there is the fundamental issue of whether payments to farmers should be targeted in some different way. The National Commission on Small Farms defined a small farm as one that sells $250,000 or less per year in products. About half of all payments go to the 6 percent of U.S. farms that are considered large by that definition. So undoubtedly there will be a continuing focus

on whether limits on payments to farmers should be seriously tightened and whether payments should be based on some entirely different measure, such as gross sales or net income. This brings me to the end of my comments. I have given you a status report on the farm economy and provided a few thoughts on some of the main forces that will be shaping U.S. agriculture and the farm equipment industry as we begin the journey into the 21st century. The forces at work–globalization and liberalization of trade policy, technology and productivity growth, the changing structure of production and marketing, and domestic policy reform–are all fraught with possible adverse consequences for some. But all four of these giant forces should give us an opportunity to feel good. All four improve the competitiveness and efficiency of agriculture. All four increase economic growth, consumer welfare and our national standard of living. All four mean change and keeping up with change. Your industry plays an immense role in supporting the efficiency and competitiveness gains in U.S. agriculture. You shape the outcome for agriculture as that outcome in turn shapes you. It is for these reasons that I am honored to have been invited to join you today and share a few thoughts. I wish you all the best in your business ventures as we all navigate the complexities of the 21st century.

###